

Preliminary Analysis

Instrumentation



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Preliminary Analysis

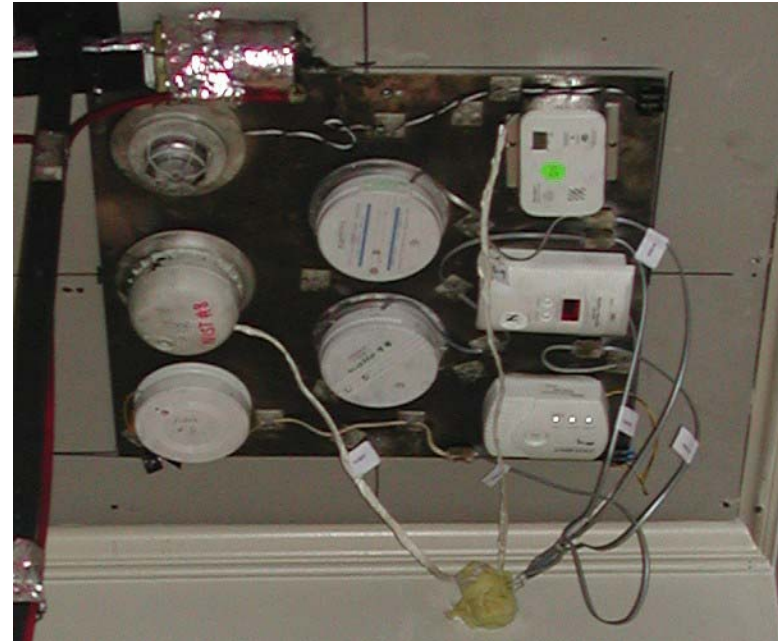
Instrumentation

- Detectors
- Thermocouples
- Load Cell
- Primary Gas Analysis
 - CO
 - CO₂
 - O₂
- Smoke Properties
- Velocity Probes
- Sprinklers
- Video
- FTIR
 - HCl, HF, NO_x,
HCN, HBr

Preliminary Analysis

Instrumentation

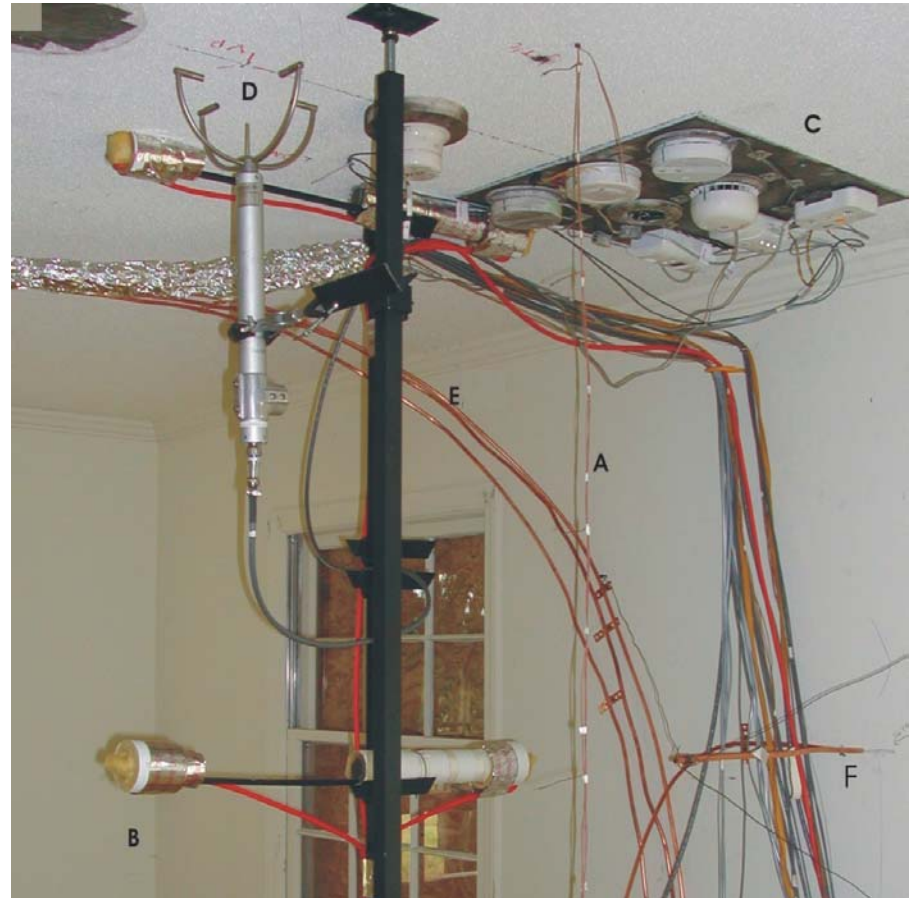
- Detectors
 - Photoelectric
 - Ionization
 - Combination
 - Carbon Monoxide
 - Heat
 - Mechanical, eutectic, and rate of rise
 - Aspirated (Photoelectric)



Preliminary Analysis

Instrumentation

- A: Thermocouples
- B: Smoke Meter
- C: Detector Board
- D: Velocity Probe
- E: Smoke Characterization
- F: Gas Sampling



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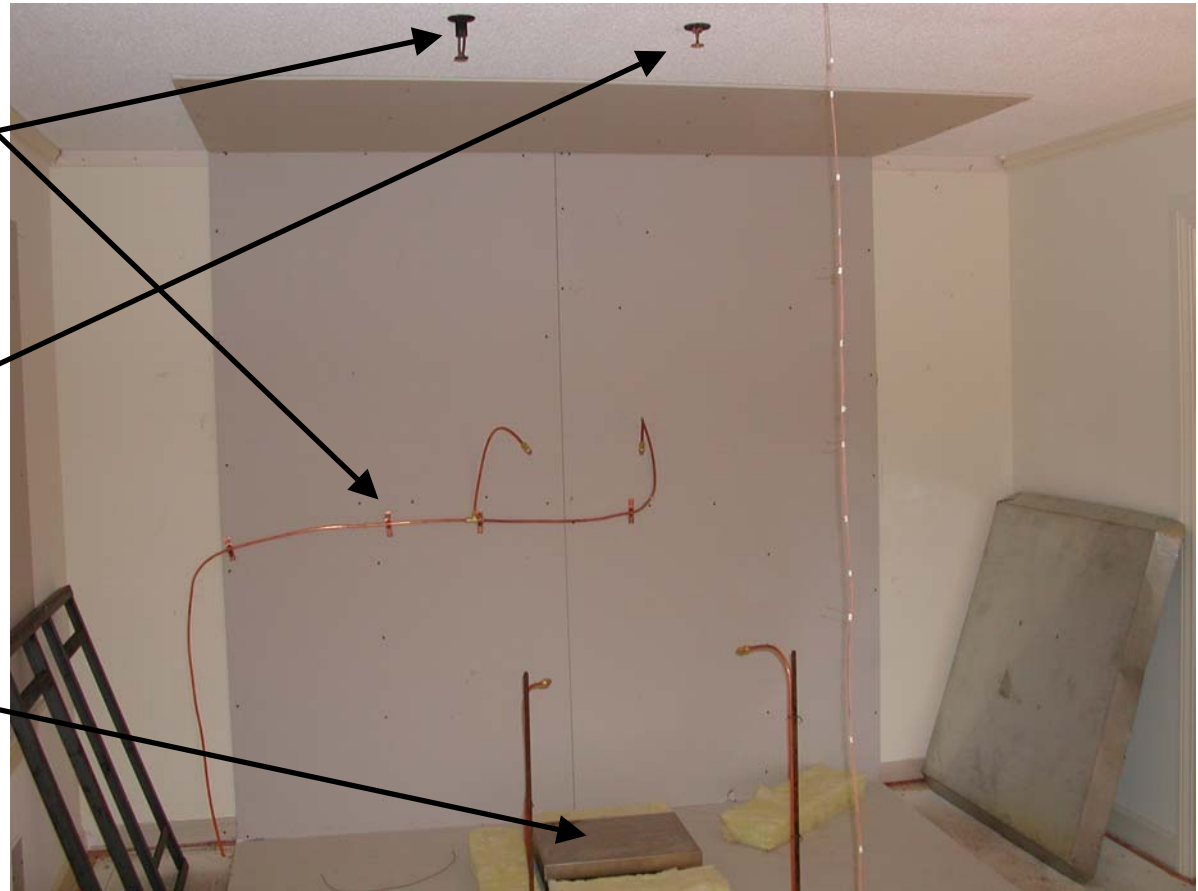
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- Suppression
- Sprinkler
- Load Cell



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Instrumentation

- Flaming Chair



- Smoldering Chair



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Instrumentation

- Smoldering Mattress
- Flaming Mattress



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Instrumentation

- Corn Oil
Fire



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Instrumentation

- Data Collection



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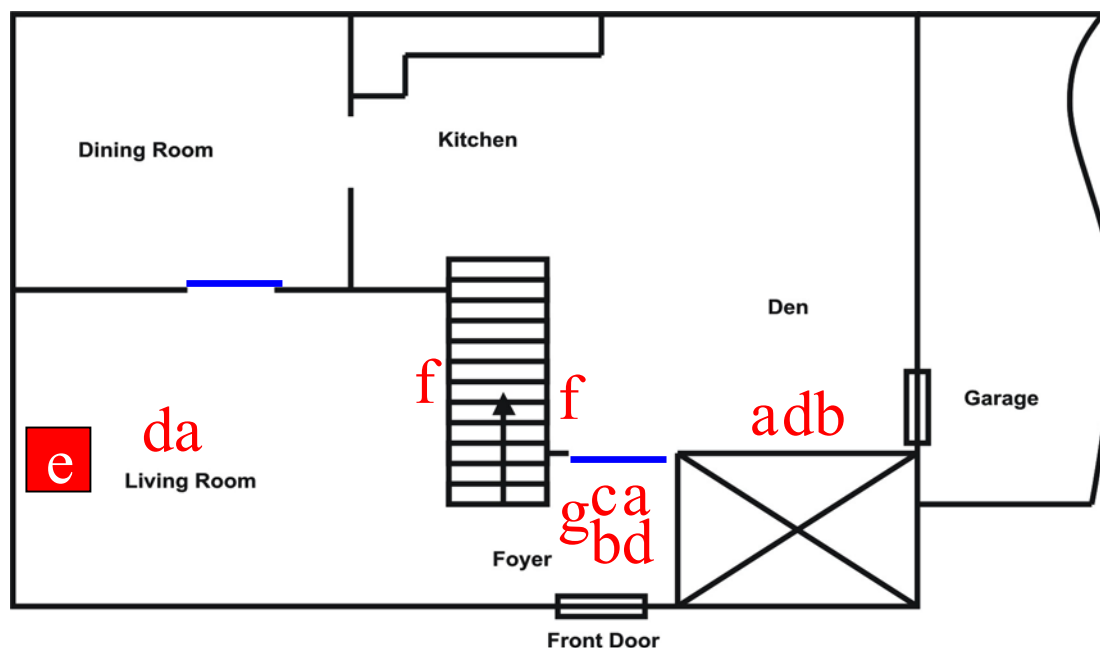
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Kinston Flaming Chair Instrumentation - Downstairs

- a tc
- b det
- c gas
- d sm
- e mass
- f cam
- g vel
- soffit



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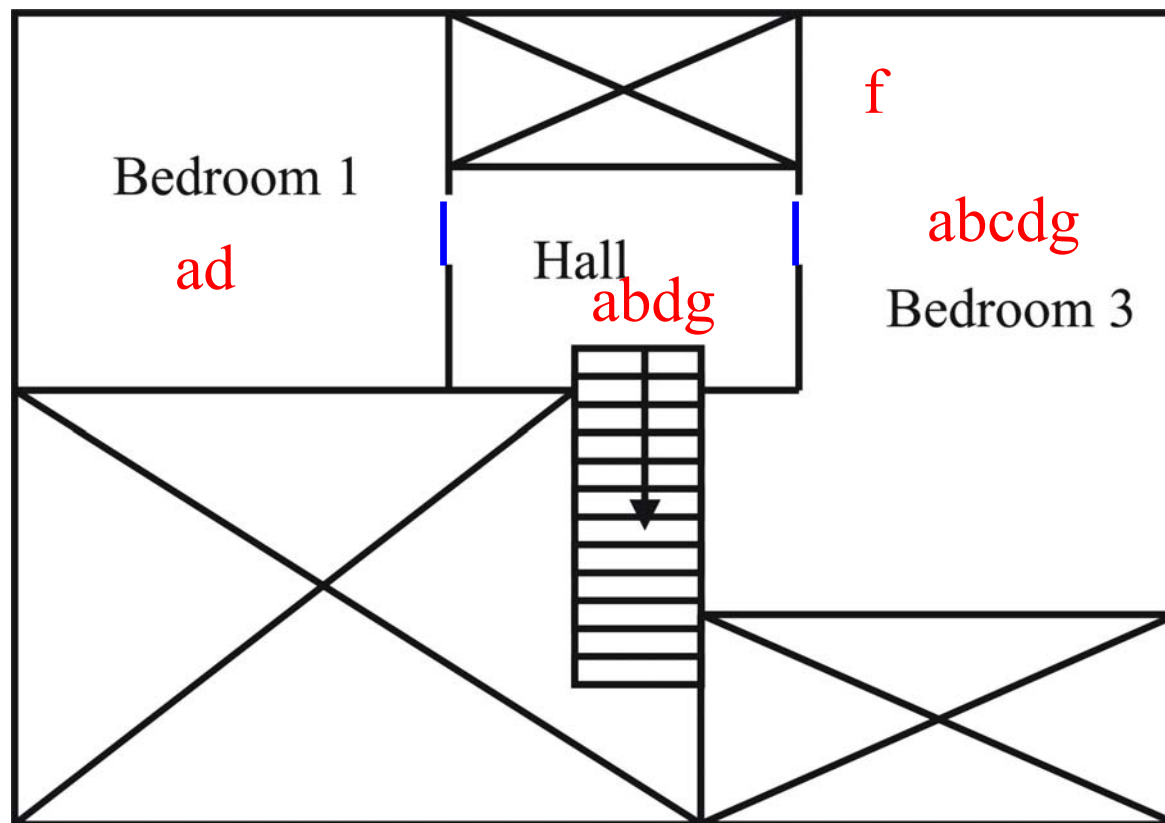
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Preliminary Analysis

Kinston Flaming Chair Instrumentation - Upstairs

- a tc
- b det
- c gas
- d sm
- e mass
- f cam
- g vel
- soffit



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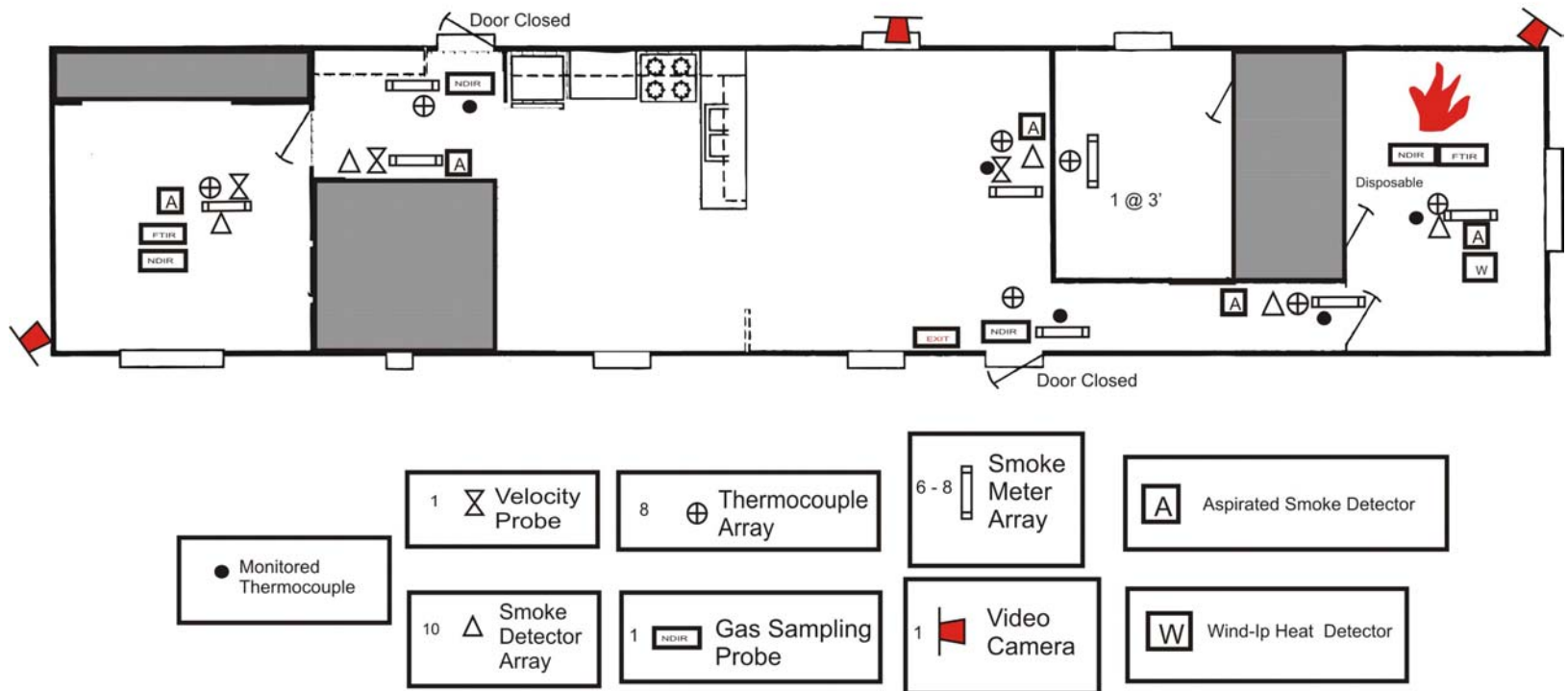
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Detector Locations - Manufactured Home

Mattress Fire in the Bedroom



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